

## INTERNATIONAL SEARCH REPORT

Inter. Application No.  
PCT/EP 03/04103A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61K47/48 A61K49/00 A61K39/35 A61K39/36 A61P37/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, EMBASE, BIOSIS, MEDLINE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 849 884 A (BROWN LARRY R ET AL) 15 December 1998 (1998-12-15) column 14, line 15 - line 19; claims 1,4,7 column 15, line 44 - line 47	1-14
Y	WO 95 19437 A (MOHAPATRA SHYAM S ;UNIV MANITOBA (CA); SEHON ALEC H (CA)) 20 July 1995 (1995-07-20)	1-14
X	claims 1,3,7,17,21,36,37; example 2	1
Y	EP 0 451 800 A (ABBOTT LAB) 16 October 1991 (1991-10-16) claims 1,2,4	1-14
	----- -/-	

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the International search

19 August 2003

Date of mailing of the international search report

26/08/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel: (+31-70) 340-2040, Tx: 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Berte, M.

## INTERNATIONAL SEARCH REPORT

Int'l Application No  
PCT/EP 03/04103

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GEETA N SAI ET AL: "In vitro immunization of murine lymphocytes using immobilized immunogens." BIOTECHNOLOGY AND APPLIED BIOCHEMISTRY, vol. 24, no. 1, 1996, pages 61-64, XP008009290 ISSN: 0885-4513 abstract	1-14
Y	SCHRAMM G ET AL: ""Allergen engineering": variants of the timothy grass pollen allergen Phl p 5b with reduced IgE-binding capacity but conserved T cell reactivity." JOURNAL OF IMMUNOLOGY (BALTIMORE, MD.: 1950) UNITED STATES 15 FEB 1999, vol. 162, no. 4, 15 February 1999 (1999-02-15), pages 2406-2414, XP002216586 ISSN: 0022-1767 page 2413, column 2, paragraph 3	1-14
A	WO 98 43657 A (MERCK PATENT GMBH ;MUELLER WOLF DIETER (DE); BUFE ALBRECHT (DE); F) 8 October 1998 (1998-10-08) abstract; claims	1-14

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

Intell. Application No

PCT/EP 03/04103

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 5849884	A	15-12-1998	US	5484894 A		16-01-1996
			US	5981719 A		09-11-1999
			US	6268053 B1		31-07-2001
			US	6090925 A		18-07-2000
			US	5554730 A		10-09-1996
			AT	163230 T		15-02-1998
			AU	6358594 A		26-09-1994
			CA	2157793 A1		15-09-1994
			DE	69408527 D1		19-03-1998
			DE	69408527 T2		04-06-1998
			EP	0688429 A1		27-12-1995
			EP	0809110 A1		26-11-1997
			ES	2113094 T3		16-04-1998
			JP	8507806 T		20-08-1996
			WO	9420856 A1		15-09-1994
			US	5578709 A		26-11-1996
WO 9519437	A	20-07-1995	AU	1410995 A		01-08-1995
			CA	2181142 A1		20-07-1995
			WO	9519437 A1		20-07-1995
EP 0451800	A	16-10-1991	US	5091318 A		25-02-1992
			AU	634647 B2		25-02-1993
			AU	7433091 A		17-10-1991
			CA	2039958 A1		14-10-1991
			EP	0451800 A1		16-10-1991
			JP	4225163 A		14-08-1992
WO 9843657	A	08-10-1998	DE	19713001 A1		01-10-1998
			WO	9843657 A2		08-10-1998
			EP	1009419 A2		21-06-2000
			HU	0001552 A2		28-09-2000
			JP	2002511842 T		16-04-2002
			PL	335981 A1		05-06-2000